

P a t e n t c l a i m s

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1. A system providing wireless hotel search and selection, and, for the selected hotel, room reservation/booking, check-in, room access control, check-out and payment services for hotel customers by combining wireless applications for hotel search and reservation/booking services, a wireless applications for check-out and payment services, and wireless hardware and applications for hotel door locks,  
characterised in that the system comprises a plurality of appropriately adapted mobile terminals (1), each such mobile terminal including a short range wireless device (25) and a long or medium range mobile telephone and processing unit (23) operating with wireless application programs, network communication means (5), hotel search and reservation/booking server means (12), and a plurality of hotel reservation/IT systems (7), wherein said mobile terminals (1), server means (12) and reservation/IT systems (7) communicate by said communication network means (5), and wherein each hotel reservation/IT system (7) is in communication (8) with a plurality of associated short range wireless door lock devices (9,32) capable of communicating with in-range wireless devices (25) of said mobile terminals (1).

2. The system of claim 1, characterised in that the system further comprises at least one electronic payment server (14) communicating by said communication network means (5) with one or more of said terminals (1), server means (12) and/or reservation/IT systems (7).

3. The system of claim 1 or 2, characterised in that the system further comprises additional corresponding wireless devices (16) in communication (15) with the hotel reservation/IT system (7) for providing communication with nearby ones of said appropriately adapted mobile wireless terminal (1).

4. The system of any one of the previous claims, characterised in that one or more wireless application programs of the mobile terminal are implemented by application means selected from a group including WAP (WML/WML Script), typical Web applications (HTML/Java Script) and Java Application/Applet

5.

A method providing wireless hotel search and selection, reservation/booking, check-in, room access control, check-out and/or payment services for hotel customers by means of

5 a system combining Wireless application for search and reservation/booking service applications, a Wireless application for check-out and payment service application, and wireless hardware and applications for hotel door locks,

c h a r a c t e r i s e d i n that the method includes the steps of a user connecting, by means of a appropriately adapted mobile terminal including a short range

10 wireless device and a long or medium range mobile telephone and processing unit operating with wireless application programs, to a hotel search and reservation/booking server, searching for, finding and selecting a suitable hotel, sending a reservation/booking request and, optionally, information on a preferred method of payment to a connected hotel reservation/IT system, receiving by the mobile terminal a reservation/booking

15 request confirmation including a key token, transferring the key token from the mobile telephone and processing unit to the wireless device of the mobile terminal, transmitting from the hotel reservation/IT system the key token to a wireless device of a wireless door of the reserved hotel room, and, upon arrival at the hotel of the user carrying the mobile terminal, transmitting wirelessly, by means of the wireless device of the mobile terminal, the key token to nearby wireless devices of wireless door locks, whereby, on receiving the appropriate key token, the arrival of the user is registered in the hotel

20 reservation/IT system and the wireless door lock of the reserved room unlocks the door.

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25 The method of claim 5, c h a r a c t e r i s e d i n that the method further includes steps of encryption, whereby the key token to become a secret encrypted key.

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The method of claim 5 or 6, c h a r a c t e r i s e d i n that the method further includes, for user check-out from the hotel and bill settlement, the additional steps of a user, by means of wireless applications of the mobile terminal, connecting to a hotel search and reservation/booking server, and, while connected to the hotel search and reservation/booking server, communicating to the hotel reservation/IT system a check-out request, receiving therefrom bill information, sending thereto a bill acceptance, receiving from a payment server a payment authorisation request, sending thereto a payment authorisation response, and by the hotel reservation/IT system, upon receiving

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receiving a payment verification, sending a key token deactivation message to the wireless door lock of the respective reserved room.

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5. The method of claim 5 or 6, characterised in that the method further includes, for user check-out from the hotel and bill settlement by means of triggering of automatic check-out or generation of a payment request from the hotel reservation/IT system to the payment server after exit registration or expiration of the reservation period, the additional steps of registering the exit from the hotel of a user by 10 means of the wireless device of the mobile terminal and an additional wireless device located at the hotel exit, wherein, if user payment is registered on or prior to the registration of exit, the check-out is registered, or, if the reservation period expires and user payment is not registered on or prior to the expiration of the reservation period, the hotel reservation/IT system automatically generates a payment request to a payment 15 server is, whereupon the user receives from a payment server a payment authorisation request, sends thereto a payment authorisation response, and wherein the hotel reservation/IT system, upon receiving a payment verification from the payment server, sends a key token deactivation message to the wireless door lock of the respective reserved room.

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The method of any one of claims 5 - 8, characterised in that any short range wireless devices are compliant with the Bluetooth industry standard

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The system of any one of claims 1 - 3, characterised in that short range wireless devices (25,16) associated with mobile terminals (1) and wirelessly operable door locks (32) are compliant with the Bluetooth industry standard.

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